

# INTERNATIONAL SEARCH REPORT

WO 2004/022526

Inter Application No

PCT/CA PCT/CA2003/001346

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C07C255/25 C07D295/096 C07D213/30 C07C317/22 C07F5/02  
C07D241/16 C07D277/24 C07C311/29 C07D215/14 C07D239/26  
C07D209/12 C07C259/10 C07C255/54 A61K31/275 A61K31/495

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C07C C07D C07F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

BEILSTEIN Data, CHEM ABS Data, EPO-Internal, WPI Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DATABASE CA 'Online! CHEMICAL ABSTRACTS SERVICE, COLUMBUS, OHIO, US; OYA, SHUNICHI ET AL.: "New Bisaminoethanethiol (BAT) ligands which form two interconvertible Tc-99m complexes" retrieved from STN Database accession no. 124:4081 XP002266549 abstract and RN 171103-93-8 & NUCLEAR MEDICINE AND BIOLOGY, vol. 22, no. 6, 1995, pages 749-57, ---	1,4,9,10
X	WO 94 14811 A (CHONG KUN DANG CORP ;KWAK HYO SUNG (KR); LEE CHONG RYUL (KR); LEE) 7 July 1994 (1994-07-07) reference examples 18-B, 18-C, 18-E --- -/--	1,4,9



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

### \* Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*&\* document member of the same patent family

Date of the actual completion of the international search

15 January 2004

Date of mailing of the international search report

30/01/2004

Name and mailing address of the ISA

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Seufert, G

# INTERNATIONAL SEARCH REPORT

Inter Application No

PCT/CA 03/01346

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A61K31/4418 A61K31/4164 A61K31/4965 A61K31/426 A61P19/08  
A61P19/10

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>DATABASE CROSSFIRE BEILSTEIN 'Online! Beilstein Institut zur Förderung der Chemischen Wissenschaften, Frankfurt am Main, DE; Database accession no. BRN 2447392 XP002266550 abstract &amp; YUKI GOSEI KAGAKU KYOKAISHI, vol. 30, 1972, page 68, 74 ---</p> <p style="text-align: center;">-/--</p>	1,4

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

### \* Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
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- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
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- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*G\* document member of the same patent family

Date of the actual completion of the international search

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Name and mailing address of the ISA

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## INTERNATIONAL SEARCH REPORT

Intern: Application No

PCT/CA 03/01346

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>DATABASE CROSSFIRE BEILSTEIN 'Online! Beilstein Institut zur Förderung der Chemischen Wissenschaften, Frankfurt am Main, DE; Database accession no. Reaction ID 1403344, 1403367 XP002266551 abstract &amp; SUZUE, S.; IRIKURA, T.: CHEM. PHARM. BULL. , vol. 16, no. 8, 1968, pages 1417-32,</p>	1,4
X	<p>DATABASE CROSSFIRE BEILSTEIN 'Online! Beilstein Institut zur Förderung der Chemischen Wissenschaften, Frankfurt am Main, DE; Database accession no. Reaction ID 227583 XP002266552 abstract &amp; COOK ET AL.: : CHEM. SOC., 1949, page 3227, 3229</p>	1,4
A	<p>WO 00 49007 A (EDWARDS PHILIP NEIL ;LARGE MICHAEL STEWART (GB); OLDFIELD JOHN (GB) 24 August 2000 (2000-08-24) abstract; claims; examples</p>	1-29
A	<p>WO 01 49288 A (MERCK FROSST CANADA INC ;ROBICHAUD JOEL STEPHANE (CA); ISABEL ELIS) 12 July 2001 (2001-07-12) page 34, line 25 -page 35, line 25; claims; examples</p>	1-29
A	<p>WO 00 55125 A (BRYANT CLIFFORD M ;BUNIN BARRY A (US); AXYS PHARM INC (US); KRAYNA) 21 September 2000 (2000-09-21) page 44, line 5 - line 18; claims; examples</p>	1-29
P,X	<p>WO 02 069901 A (BAYLY CHRISTOPHER IAN ;MERCK FROSST CANADA INC (CA); ROBICHAUD JOE) 12 September 2002 (2002-09-12) example 5; page 136, compounds 3 and 4 of the table; page 140, compound 11 of the table, page 144, compounds 1-3 and 6-8 of the table; claims</p>	1-29
P,X	<p>WO 02 098850 A (THURAIRATNAM SUKANTHINI ;LI JIAYAO (US); LINK JOHN O (US); ZIPFEL) 12 December 2002 (2002-12-12) page 146, line 22 - line 27 and claim 15 (page 193, line 9) claims 1,17-20</p>	1-29

## FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

## Continuation of Box I.2

The initial phase of the search revealed a very large number of documents relevant to the issue of novelty. So many documents were retrieved that it is impossible to determine which parts of the claim(s) may be said to define subject-matter for which protection might legitimately be sought (Article 6 PCT). For these reasons, a meaningful search over the whole breadth of the claim(s) is impossible. Consequently, the search has been restricted to compounds of the given formula in claim 1 where at least one of R7 or R8 is hydrogen and D is a cyclic residue. For these compounds search and search report may be considered complete. Documents referring to compounds outside the scope of the aforementioned restriction have been cited merely as an arbitrary selection of the many documents retrieved during the initial phase of the search.

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

# INTERNATIONAL SEARCH REPORT

In International application No.  
PCT/CA 03/01346

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:  
  
Although claims 16-21, 23 and 24 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☒ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:  
  
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

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